

A new species of *Eucyclophylla* Waterhouse (Coleoptera: Scarabaeidae: Melolonthinae)

by

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Eucyclophylla namaqua **sp. nov.** is compared with *E. lata* Waterhouse. The genus *Eucyclophylla* is diagnosed and compared with related genera.

INTRODUCTION

The genus *Eucyclophylla* was described by Waterhouse (1875) to accommodate the species *E. lata* Waterhouse. During the course of a study of the Afrotropical *Pachydemiini sensu* Dalla Torre (1913) I was afforded the opportunity to study the holotype of *E. lata* and additional material which proved to belong to a new species.

The following abbreviations are used to denote the location of study material:

- ARHC – A. R. Hardy, California Department of Food and Agriculture, Sacramento.
- AVEC – A. V. Evans, University of Pretoria.
- BMNH – British Museum (Natural History), London.
- NCI – National Collection of Insects, Pretoria.
- SAM – South African Museum, Cape Town.
- TM – Transvaal Museum, Pretoria.

Genus *Eucyclophylla* Waterhouse

Eucyclophylla Waterhouse, 1875: 406, Péringuey 1904: 131.

Type-species: *E. lata* Waterhouse, by monotypy.

Description: *Head* with labial palps 3-segmented; maxillary palps 4-segmented; maxillae weakly developed, dentate externally; labrum transverse, broadly emarginate; antennae 10-segmented, club 7-segmented, strongly curved, 3-times the length of the pedicel; clypeus rounded, wider than long; clypeal suture never carinate; frons coarsely punctate; vertex impunctate medially. *Pronotum* transverse, convex, pilose, broadest posteriorly; anterior angles not produced. *Scutellum* large, rounded laterally, blunt apically. *Elytra* long, covering propygidium, subparallel. Metathoracic wings fully developed in male. *Pygidium* triangular, produced horizontally. *Thorax* with sterna pilose. *Legs* with protibiae bidentate or tridentate, spurs absent; inner protarsal claws strongly hooked, all claws toothed; femora pilose; metatibiae with incomplete setigerous carinae; metatibial corbulae without processes; metatibial apical spurs

broad. *Abdomen* pilose, without lateral ridges; broad membrane between visible sternites 5 and 6; propygidium not fused to fifth visible sternite. *Male genitalia* with parameres symmetrical, not fused basally.

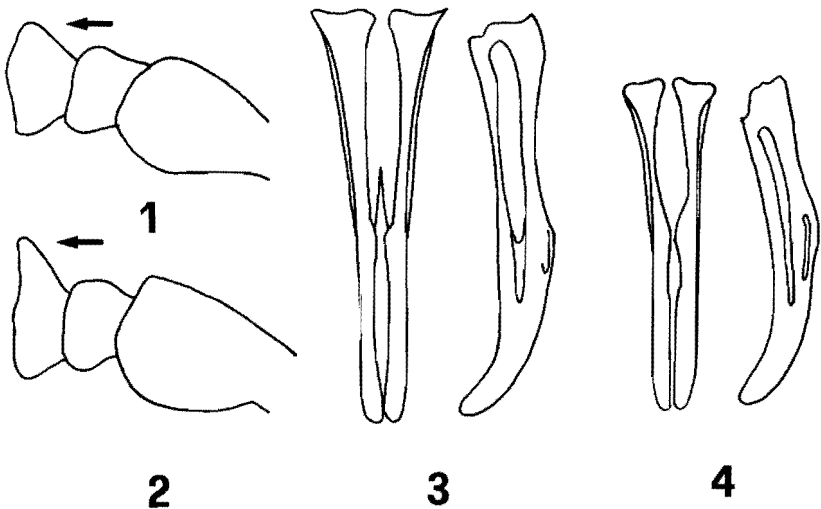
I have examined one female of the genus, collected in SOUTH AFRICA: Cape Province: Namaqualand, Groenrivier Mouth, 30.52 S-17.35 E, 24-viii-1979, E-Y: 1593, singled, leg. Endrödy-Younga. I am reluctant to assign this individual to a species as it differs substantially from the known males in the following respects: body generally more robust; antennal club shorter than pedicel; dorsal surfaces glabrous.

Eucyclophylla is restricted to the coastal sand veld areas of the south-western Cape Province.

Eucyclophylla is most similar to *Macrophylla* Hope and *Pleiophylla* Péringuey by the long, curved antennal club (in the males), the broad labium, and by the lateral insertion of the labial palps. It may be readily distinguished from these genera by the 7-segmented club and anteriorly attenuated lateral pronotal margins. The antennal club of *Macrophylla* has 3 or 5 segments, while the club of *Pleiophylla* is 6-segmented.

Key to the males of species of *Eucyclophylla* Waterhouse

- 1 Elytra with pale setae; scutellum coarsely punctate, usually not impunctate medially; third antennal segment slightly produced (Fig. 1) *E. lata* Waterhouse
- Elytra with dark setae; scutellum finely punctate, usually narrowly impunctate medially; third antennal segment distinctly produced (Fig. 2) *E. namaqua* sp. nov.



Figs. 1-4. *Eucyclophylla* spp. 1-2. First three antennal segments. 3-4. Male parameres, frontal and lateral aspects. 1, 3. *E. lata* Waterhouse. 2, 4. *E. namaqua* sp. nov.

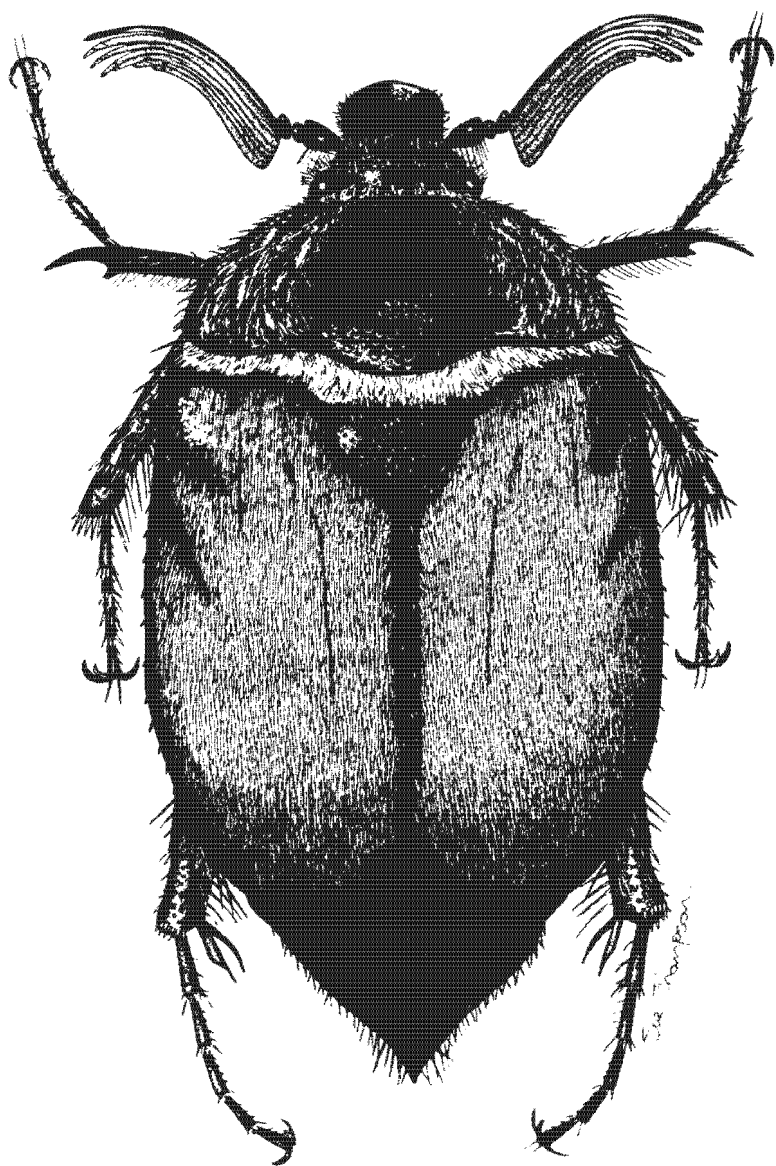


Fig. 5. *Eucyclophylla lata* Waterhouse, dorsal habitus. Actual length = 15,0 mm.

Eucyclophylla lata Waterhouse, Figs 1, 3, 5*Eucyclophylla lata* Waterhouse, 1875: 406; Péringuey 1904: 132.

Description: 15.0 mm long. *Head* with clypeal margin circular, coarsely, setigerously punctate; margins shallowly reflexed; clypeal suture broadly arcuate; frons coarsely, setigerously punctate, setae short, pale, erect; labrum not fused to clypeus; antennal segment 1 globose, segment 2 short, transverse, segment 3 broad, punctate, slightly produced anteriorly (Fig. 1). *Pronotum* densely, setigerously punctate; setae pale, suberect. *Scutellum* broad, setigerously punctate; setae short, pale, suberect. *Elytra* rufobrunneous, broadest medially, surface covered with short, pale, appressed setae; two striae vaguely evident between suture and humerus. *Pygidium* triangular, length shorter than basal width; disc with scattered setigerous punctures separated by $1/2$ to 1 times their own widths; setae pale, recumbent. *Male genitalia* as in Fig. 3.

MATERIAL EXAMINED: Holotype male, C.S.H. (BMNH). Additional material examined: 3 (SAM, TM) SOUTH AFRICA: CAPE PROVINCE: Saldanha, Oude Past, 22-VII-1967.

Remarks: Waterhouse (1875) records the type-locality as the Cape of Good Hope.

Eucyclophylla namaqua sp. nov., Figs 2, 4

Description: 12.5–15.5 mm in length. Same as for *E. lata*, but with the following exceptions: antennal segment 3 is more produced (Fig. 2); scutellum finely punctate, usually impunctate medially; elytra with dark setae; two distinct striae between suture and humerus; protibiae usually tridentate, occasionally bidentate. Male genitalia as in Fig. 4.

MATERIAL EXAMINED: Holotype male, SOUTH AFRICA: CAPE PROVINCE: Nortierfarm, 32.03S 18.19E, 25.viii.1981, E-Y: 1840, day, red sand (TM); 13 paratype males (ARHC, AVEC, BMNH, TM): SOUTH AFRICA: CAPE PROVINCE: 3 paratypes, same data as holotype, except on flowers; 2 paratypes, W. Cape, Doringbaai, 15 km S, 31.58S 18.17E, 19.viii.1983, E-Y: 1949, white sand; 1 paratype, Namaqualand, Island Point, 4 km S, 30.56S 17.38E, 27.x.1979, E-Y: 1660, white sand; 1 paratype, Seweputs farm, 31.39S 18.22E, 22.viii.1981, E-Y: 1832, singled, night; 1 paratype, Papendorp dunes, 31.38S 18.12E, 21.viii.1981, E-Y: 1824, dry red dunes; 1 paratype, Namaqualand, Soutpan, 15 km N, 31.11S 17.46E, 28.viii.1979, E-Y: 1615, white coastal dunes; 2 paratypes, Kommandokraal, 31.31S 18.13E, 100 m, 23.ix.1985, A. V. Evans, C. L. Bellamy; 2 paratypes, 4.5 mi. S.E. Elandsbaai, 17.ix.1972, M. E. Irwin, coastal sand plain, 50 ft. alt., 3218 Ad.

Remarks: *E. namaqua* may be distinguished from *E. lata* by the mixture of pale and dark elytral setae, distinct eytral costae, sharply produced third antennal segment, and by the male genitalia.

This species is diurnal and has been collected on flowers. I collected two living specimens at Kommandoskraal trapped in the webs of social spiders. The nest was littered with the remains of this species, as well as those of *Glyptoglossa* sp. (Melolonthinae).

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